

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006121**Date Inspected:** 29-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 630**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Liu Wei Wei, Chen Likun & Shi			<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes	No	N/A	<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Electrode to specification:</b>	Yes	No	N/A	<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Qualified Welders:</b>	Yes	No	N/A	<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved Drawings:</b>	Yes	No	N/A	<b>Approved WPS:</b>	Yes	No N/A
				<b>Delayed / Cancelled:</b>	Yes	No N/A

**Bridge No:** 34-0006**Component:** Tower and OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector performed Ultrasonic Testing (UT) on approximately 15% of CJP on the OBG I-beam and OBG 1AW welds previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QA Inspector observed no rejectable indications at the time of testing. The QA Inspector generated a TL-6027 UT report on this date. Welds UT verified were identified as listed below

Bay 7

SP780-001-037, 038, 051, 053, SP594-001-039, 040, 047, 049, SP594-001-039, 040, 047, 049

SP740-001-038, 037, 051, 053, SP634-001-037, 038, 051, 053, SP554-001-044, 045, 058, 060

SP502-001-044, 045, 058, 060

Bay 2

SSD37- PP010-007, SSD37A- PP010-007, SSD34- PP08.5-007, SSD34A- PP08.5-007

SSD35- PP009-007, SSD35A- PP009-007, SSD36- PP09.5-007, SSD36A- PP09.5-007

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This QA Inspector observed the following work in progress:

### Bay 10

ZPMC's qualified welding personnel's are identified as Mr. Yu Chaoye (053869), Mr. Jiang Zhou (040261) and Mr. Zhang Songlin (057266) perform FCAW (repair) welding on weld joint identified as SSD1-A111B/H-124A/B, SSD1-A111F/H-91A/B and SSD1-A111E/J-242A/B. ZPMC QC identified Mr. Chen Likun was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-FCAW-2G (2F)-Repair.

ZPMC's welding personnel's are identified as Mrs. Zhang Lingling (207746) and Mrs. Liu Xianoyan (207745) performing groove welding of weld joint SSD1-FCSA3-1B/C-58A and SSD1-FCSA3-1B/C-56A. The personnel were observed welding in the 1G (flat) position utilizing a Submerged Arc Welding (SAW) process. ZPMC QC identified Mr. Li Ming and was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-U3C-S-1.

ZPMC's qualified welding personnel's are identified as Mr. Wang Ziwei (043727) and Mr. Guo Liang (057247) perform SMAW welding on weld joint identified as NSD1-TL8B/L-1A/B. ZPMC QC identified Mr. Wu Zhi Feng was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-SMAW-2G (2F) and WPS-B-P-2212.

### Bay 11

ZPMC's welding personnel's are identified as Mrs. Wu Aixiang (044560) and Mrs. Li Xiaoqing (040772) performing groove welding of weld joint ESD1-FCSA3-2B/C-65B and ESD1-FCSA3-2B/C-66B. The personnel were observed welding in the 1G (flat) position utilizing a Submerged Arc Welding (SAW) process. ZPMC QC identified Mr. Li Ming and was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-U3C-S-1.

ZPMC's qualified welding personnel's are identified as Mr. Zhu Zeyuan (053916), Mr. Xie Zhong Chen (041271), Mr. Yang Zaihua (040669) and Mr. Yang Zhaojin (047470) perform SMAW welding on weld joint identified as ND1-A476-77M-1-31B, 28B, NDI-A478-43M-1-1B, 6B, 28A and NDI-A468-38M-1-1B, 6B, 28B. ZPMC's QC identified Mr. Li Hong Fei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-3212-TC-U5b-1 and WPS-2212-TC-U5b-1.

ZPMC's qualified welding personnel is identified as Mr. Yin Guoqiang (058792) perform FCAW welding on weld joints identified ESD1-TL7B/L-4A/B. ZPMC QC identified Mr. Chen Likun was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-4332-TC-P5-F.

### Bay 7

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ZPMC's qualified welding personnel identified as Mr. Liu Yi (051019) perform SMAW tack welding on weld joints identified SP64-001-019 and 020. ZPMC QC identified Mr. Xuxian Ping was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2112.

ZPMC's qualified welding personnel identified as Mrs. He Yumei (048625) perform FCAW welding on weld joints identified SP505-001-046. ZPMC QC identified Mr. Xuxian Ping was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-B-U2-F.

### Bay 3

ZPMC qualified welding personnel Mr. Chen Chuanzong (044824) perform FCAW (repair) welding on weld joint identified as FB015-029-043. ZPMC QC identified Mr. Liu Wei Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2133 and WPS-345-(FCAW)-2G(2F)-repair1.

### Bay 2

ZPMC's qualified welding personnel identified as Mr. Gao Dongliang (048714) and Mr. Wang Shilin (205091) perform FCAW welding on weld joints identified DP610-001-095 and DP545-002-108 thru 130. ZPMC QC identified Mr. Shi Lei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (134-8257-0045), who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Alaniz,Joe	Quality Assurance Inspector
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<b>Reviewed By:</b>	Clifford,William	QA Reviewer
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